

IN THE CLAIMS

1. (Currently amended) A liquid jetting apparatus to jet a droplet of a charged liquid solution onto a base material, comprising:

a liquid jetting head comprising a nozzle to jet the droplet from an edge portion, an inside diameter of the edge portion of the nozzle being more than $0.2\ \mu\text{m}$ and being not more than $4\ \mu\text{m}$, and at least the edge portion of the nozzle being formed with insulating material, the nozzle being integrally formed with a nozzle plate;

a liquid solution supplying section to supply the liquid solution into the nozzle; and

a jetting voltage applying section to apply a jetting voltage to the liquid solution in the nozzle, the jetting voltage applying section comprising a jetting electrode provided as a layer on a back end surface of the nozzle plate, the jetting electrode having ~~a ink~~ an ink passage hole positioned at a border between the liquid solution supplying section and the inside passage;

wherein an inside passage length of the nozzle is set to at least not less than 50 times of the inside diameter of the nozzle at the nozzle edge portion.

2. (Cancelled)

3. (Original) The liquid jetting apparatus of claim 1, wherein the inside passage length of the nozzle is set to at least not less than 100 times of the inside diameter of the nozzle at the nozzle edge portion.

4. (Previously Presented) The liquid jetting apparatus of claim 1, wherein a wall thickness of the nozzle at the nozzle edge portion is set to not more than a length equal to the inside diameter of the nozzle at the edge portion of the nozzle.

5. (Original) The liquid jetting apparatus of claim 4, wherein the wall thickness of the nozzle at the edge portion of the nozzle is set to not more than $1/4$ of the length equal to the inside diameter of the nozzle at the nozzle edge portion.

6. (Previously Presented) The liquid jetting apparatus of claim 1, wherein at least the edge portion of a surface of the nozzle is subjected to a water repellent processing.

7. (Previously Presented) The liquid jetting apparatus of claim 1, wherein an edge surface of the nozzle comprises an inclined surface with respect to a centerline of the in-nozzle passage.

8. (Withdrawn) The liquid jetting apparatus of claim 7, wherein an inclination angle of the edge surface of the nozzle is set to be in a range of 30 to 45 degrees (when a state in which a normal line of the inclined surface is parallel to the centerline of the in-nozzle passage is defined as 90 degrees).

9-12. (Canceled)

13. (Previously Presented) The liquid jetting apparatus of claim 1, wherein a jetting electrode of the jetting voltage applying section is provided on a back end portion side of the nozzle.

14. (Previously Presented) The liquid jetting apparatus of claim 1, wherein the liquid solution supplying section comprises a liquid solution room, and the ink passage hole is at a border position between the liquid solution room and the inside passage of the nozzle.

15. (Previously Presented) the liquid jetting apparatus of claim 1, wherein the inside diameter of the nozzle at the nozzle edge portion and an inside diameter of the inside passage of the nozzle are uniform.